

On “Non Agentive Verbs” Presupposing an Action Agent-oriented Adverbs and Psych-verbs

Introduction. As is well-known, only a subset of causative psych-verbs is compatible with what Geuder (2000) and Bonami et al. (2004) call agent-oriented manner adverbs (AOMAs) like *cautiously*, *patiently*, or *relentlessly*. On the relevant reading, these adverbs are paraphrasable by *in a cautious, patient, relentless way* and are often assumed to be predicates of event.¹

- (1) a. Mary cautiously seduced me.
b. ??Mary cautiously attracted me.
a. He patiently encouraged them/ relentlessly bored me.
b. ??He patiently stimulated them/ ??relentlessly irritated me.

The verbs compatible with these adverbs will be called *encourage*-verbs, and the other ones *stimulate*-verbs.

Roughly, two explanations of the contrasts illustrated in (1) have been proposed. According to the first one (advocated e.g. by Di Desidero (1993) and van Voorst (1995)), AOMAs are unacceptable when the entity denoted by the subject (henceforth “S”) is not a plain Agent in reality (one cannot act with sufficient intent, volition and control to provoke the desired reaction of the Experiencer). In other words, the Seducer, but not the “Attractor”, is a real Agent. However, this solution faces two problems. First, contrary to uncontroversially non-agentive verbs like *suffer* or *know*, *stimulate*-verbs can often be used in constructions which are also said to require the presence of an Agent (see (2)-(3)). This suggests that with *stimulate*-verbs, S *can* be an Agent in some way. Second, even in cases where S is obviously an Agent (as the doctor in (4)), the possibility to have an AOMA is not guaranteed.

- (2) ??It was stupid of Mary to suffer/ clever of Mary to know how to answer.
- (3) OK It was stupid of Mary to irritate them.
OK It was clever of Mary to stimulate them.
- (4) The doctor patiently tried to persuade me to take the medicine/ ??patiently persuaded me to take the medicine.
- (5) In doing this, Mary stimulated everybody.

Following a second approach to the problem illustrated in (1), *stimulate*-verbs are not compatible with AOMAs because their subject always denotes an abstract entity. Since an abstract entity is not able to act, their subject cannot be associated with the thematic role Agent (Bouchard (1995), p. 258 *et sq.*). However, while it is certainly right to say that the subject of *stimulate*-verbs *can* denote an abstract entity (as it is explicitly the case with a propositional subject), it seems exaggerated to say that it is always the case. For instance, in (5), the subject of *stimulate* corefers with the implicit subject of the agentive gerund, which is obviously an Agent.

A new proposal. My explanation of (1) relies on two hypothesis. Hyp. 1 : An AOMA can only apply to an event whose occurrence is *asserted* by the verb ; Hyp. 2 : Contrary to *encourage*-verbs, *stimulate*-verbs do not *assert* the causing event ; they *presuppose* it. In two words, the idea is that AOMAs are unacceptable in (1b) because they cannot have access to the causing event, which is potentially an action of S, but only to the caused (psychological) event, which is not an action, and *a fortiori* not an action of S.

I will firstly show that Hyp. 1 can be used independently to explain the incompatibility of AOMAs with achievement verbs like *find* or *persuade*. Then I will come back to psych-verbs.

AOMAs and achievement verbs. Several authors have argued that achievement verbs like *find* or *persuade* lexically presuppose an event (a search, an attempt to persuade), and assert the right boundary of this event (Zybatow (2004), Malink (2007), Piñón (2007)). Evidence for this is that these verbs presuppose an event under negation :

- (6) Peter didn’t find the key.
→ Peter was looking for the key, or did something that could have resulted in his finding the key.

Given Hyp. 1, we can straightforwardly explain the unacceptability of a sentence like (7):

- (7) ??Peter intensively found the key.

The AOMA *intensively* can only modify the finding itself, and not the search. But as the finding is instantaneous, it cannot be an action, and thus cannot serve as the argument of an AOMA.

¹“Mary cautiously attracted me” can also mean something like “It was cautious of Mary to attract me”. On this reading, *cautiously* is not commonly assumed to be a predicate of events and is compatible with almost every causative psych-verbs. This reading is thus ignored here.

Back to psych-verbs. Following Hyp. 2, among causative psych-verbs, only *encourage*-verbs assert the causing event (the action of S); *stimulate*-verbs *presuppose* it. One of the arguments in favour of this idea is that *stimulate*-verbs pass the classical tests for presupposition:

- (8) a. Peter didn't encourage them.
 $\not\rightarrow$ Peter had done something that could have made them encouraged.
 b. Peter didn't stimulate them.
 \rightarrow Peter had done something that could have made them stimulated.

(Note that (8) also presupposes a perception by the Experiencer of the event to which Peter participates).

Hyp. 1 allows us to explain why *stimulate*-verbs are incompatible with OAMAS, without committing us to say like van Voorst that S is never an Agent with these verbs. The subject of sentences (1b) can *well* and truly be an Agent; however, the action, if any, is presupposed by the verb and thus cannot be accessed by the AOMA.

In order to capture this presupposition, I propose to associate to the “agentive” version of *stimulate*-verbs a lexical representation as the one proposed in (11) for *stimulate*, on the model of what is proposed by Piñón (2007) for achievement verbs. Piñón adopts the type of representation used by Malink (2007), where the top formula of the two-dimensional array corresponds to the assertion and the bottom formula to the lexical presupposition, as suggested in (10). t_r is the reference time. ²

$$(10) \begin{bmatrix} \textit{Assertion} \\ \textit{Presupposition} \end{bmatrix}$$

$$(11) \textit{stimulate}_{ag} \Rightarrow \lambda y \lambda x \lambda v \begin{bmatrix} \textit{Stimulate}(v) \wedge \textit{Causer}(x, v) \wedge \textit{Exp.}(y, v) \wedge \tau(v) \sqsubseteq t_r \\ \left[\begin{array}{l} \exists v' \exists v'' [\textit{Agent}(x, v') \wedge \textit{Perceive}(v'') \wedge \\ \textit{Exp.}(y, v'') \wedge \textit{Theme}(v', v'') \wedge (\tau(v') < t_r) \end{array} \right] \end{bmatrix}$$

On the other hand, *encourage*-verbs can be used in two ways. Either they assert the action, as in (12), or they presuppose it, as in (13).

(12) She actively encouraged₁ me.

(13) A woman left the cinema in the middle of the film. In doing so, she encouraged₂ me also to leave.

(14) She didn't actively encourage₁ me to leave. But, nevertheless, in leaving, she encouraged₂ me also to do so.

(15) $\textit{encourage}_1 \Rightarrow \lambda y \lambda x \lambda e \lambda e' [\textit{Encourage}(v) \wedge \textit{Ag}(x, v) \wedge \textit{Cause}(v, v') \wedge \textit{Be-encouraged}(v') \wedge \textit{Exp}(v, v')]$

(16) A woman left the cinema. #In doing so, she cautiously encouraged₂ me also to leave.

I argue that *encourage*-verbs are ambiguous and do not denote the same kind of change of state in both uses; this ambiguity explains why (14) is not (completely) contradictory. In (12), the verb *encourage*₁ asserts an attempt to encourage, and implies a resulting change of state consisting of being the Patient of this attempt. It only *implicates* that the Exp. is encouraged in the sense of *feeling* encouraged (hence the possibility to continue (12) by *...but she didn't succeed*). In (13), the verb *encourage*₂ presupposes an action (which can be of any kind), and implies a resulting change of state consisting of feeling encouraged. Accordingly to this analysis, *encourage*₁ is represented as any “traditional” causative verb (cf. (15)), whereas the proposed representation of *encourage*₂ resembles the one of *stimulate*-verbs. In conformity with Hyp. 1, only *encourage*₁ is compatible with AOMAS, as suggested by the unacceptability of (16).

Selected References Bonami, O., Godard, D. and Kampers-Manhe, B., (2004), Adverb classification. In Corblin, F. and de Swart, H., eds, *Handbook of French Semantics*, CSLI, 143-184 • Bouchard, D. (1995), *The Semantics of Syntax*. The University of Chicago Press. • Geuder, W. (2005), *Oriented Adverbs*, Doct. diss., Universität Tuebingen • Malink, M. (2007), to appear, Right Boundary Achievements under Conative Negation. De Gruyter, <<http://pinon.sdf-eu.org/covers/nrbacm.html#malink>> • Piñón (2007), Negating Right Boundary Achievements (Comments on Malink). De Gruyter, <<http://pinon.sdf-eu.org/covers/nrbacm.html>> • Van Voorst, J. (2005), Le contrôle de l'espace psychologique. *Langue française*, 105:17-27 • Zybatow, T. (2004). Achievements: Two Experimental Studies and One Semantic Analysis. Paper presented at *Sinn und Bedeutung 9*, Nijmegen, November 2004.

²Appealing to the reference time is the trick used by Piñón to define better the presupposed event of achievement verbs.

Note that the representation (11) does not ensure that the action v' of x **causes** the psychological result v . This is desirable, since the presupposed action is *not* a causing event in the case of negative sentences. As suggested by Piñón (2007), the relation between the presupposed and the asserted event can be translated by an independent axiom associated to each of these presuppositional verbs (see below for *stimulate*):

$$(9) \forall x \forall y \forall v \forall t_r [\textit{Stimulate}(v) \wedge \textit{Causer}(x, v) \wedge \textit{Experiencer}(y, v) \wedge \tau(v) \sqsubseteq t_r \rightarrow \exists v' \exists v'' [\textit{Participant}(x, v') \wedge \textit{Perceive}(v'') \wedge \textit{Experiencer}(y, v'') \wedge \textit{Theme}(v', v'') \wedge \textit{Cause}(v', v) \wedge (\tau(v') < t_r)]]$$

The presupposition in (11) is redundant with the axiom in the case of positive sentences (which already captures the presupposition each time a psych result occurs), but plays a crucial role in the case of negative ones.